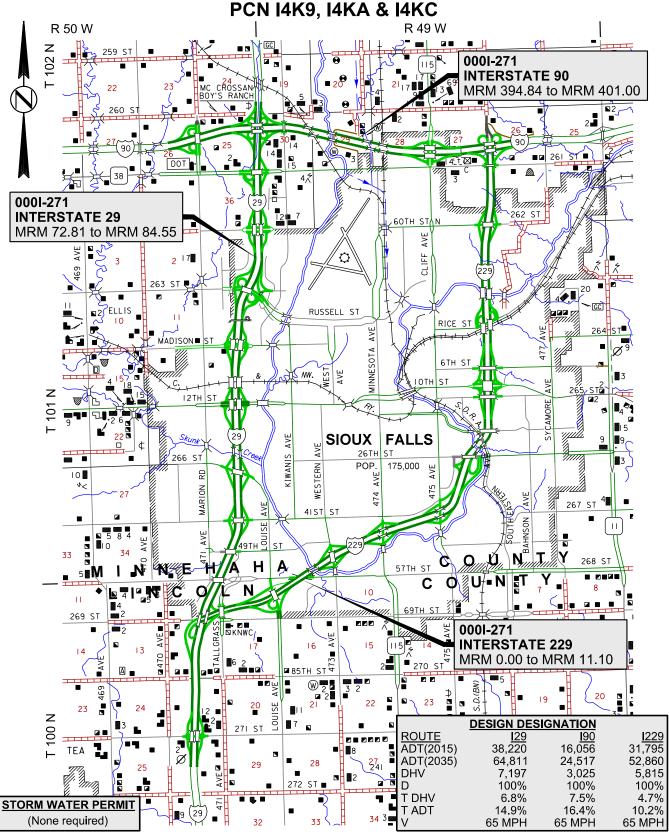
000I-271 INTERSTATES 29, 90 & 229 MINNEHAHA & LINCOLN COUNTIES MOWING



Sheet 1 of 44

INDEX OF SHEETS

Sheet 1 Layout Map

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Sheet 3 Estimate of Quantities

Sheets 4 - 6 Table of Mowing

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ESTIMATE OF QUANTITIES

2017 PCN I4K9

Bid Item Number	ltem	Quantity	Unit
009E0197	Mobilization 1	1	Each
900E2300	Mowing (Total of all 3 Mowing Cycles)	3480.2	Acre

2018 PCN I4KA

Bid Item Number	ltem	Quantity	Unit
009E0198	Mobilization 2	1	Each
900E2300	Mowing (Total of all 3 Mowing Cycles)	3746.4	Acre

2019 PCN I4KC

Bid Item Number	ltem	Quantity	Unit
009E0199	Mobilization 3	1	Each
900E2300	Mowing (Total of all 3 Mowing Cycles)	3647.4	Acre

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

0001-271 MINNEHAHA & LINCOLN COUNTIES TABLE OF MOWING IN 2017 - PCN I4K9

	ANNUAL MOWING ACRES			ES		
LOCA	TION		1ST	2ND	3RD	2017
MRM TO		AREA TO BE MOWED IN 2017	MOWING	MOWING	MOWING	TOTALS:
IVITAINI T	J IVINIVI		CYCLE	CYCLE	CYCLE	TOTALS.
		129				
72.81	74.01	Tea Interchange Exit 73	35.9	35.9	35.9	107.7
74.01	74.65	Between Exit 73 and Exit 75	15.7	15.7	15.7	47.1
74.65	75.74	I29 Systems Interchange Exit 75	0.0	0.0	48.0	48.0
75.74	76.24	Between Exit 75 and 57th Street	0.0	0.0	8.7	8.7
76.24	77.05	Between 57th Street and 41st Street	18.2	18.2	18.2	54.6
77.05	77.81	41st Street Interchange Exit 77	21.9	21.9	21.9	65.7
77.81	78.34	26th Street Interchange Exit 78	32.1	32.1	32.1	96.3
78.34	78.82	Between 26th Street and 12th Street	7.5	7.5	7.5	22.5
78.82	79.53	12th Street Interchange Exit 79	17.3	17.3	17.3	51.9
79.53	80.02	Between 12th Street and Madison Street	13.0	13.0	13.0	39.0
80.02	80.73	Madison Street Interchange Exit 80	23.8	23.8	23.8	71.4
80.73	82.00	Russell Street Interchange Exit 81	84.0	84.0	84.0	252.0
82.00	82.77	Benson Road Interchange Exit 82	22.3	22.3	22.3	66.9
82.77	83.89	60th St North Interchange Exit 83	81.1	81.1	81.1	243.3
83.89	84.55	I29 Systems Interchange Exit 84	41.7	41.7	41.7	125.1
		I29 TOTALS:	414.5	414.5	471.2	1300.2
		190				•
394.84	396.10	Marion Road Interchange Exit 395	75.6	75.6	75.6	226.8
396.10	396.98	I90 Systems Interchange Exit 396	32.9	32.9		98.7
396.98	397.85	Between Kiwanis Avenue and Big Sioux River	26.8	26.8		80.4
397.85	399.11	Between Big Sioux River and Cliff Avenue	35.0	35.0	35.0	105.0
399.11	400.16	Cliff Avenue Interchange Exit 399	28.1	28.1	28.1	84.3
400.16	401.00	I90 Systems Interchange Exit 400	40.6	40.6	40.6	121.8
		I90 TOTALS:		239.0		
		1229				
0.00	0.08	I229 Systems Interchange	0.0	0.0	53.9	53.9
0.08	0.39	Between Solberg Avenue and Louise Avenue	0.0	0.0	7.3	7.3
0.39	1.26	Louise Avenue Interchange Exit 1C	63.1	63.1	78.3	204.5
1.26	1.81	Between Louise Avenue and Western Avenue	21.4	21.4	21.4	64.2
1.81	2.36	Western Avenue Interchange Exit 2	20.9	20.9	20.9	62.7
2.36	2.78	Between Western Avenue and Minnesota Avenue	9.9	9.9		29.7
2.78	3.32	Minnesota Avenue Interchange Exit 3	22.7	22.7	22.7	68.1
3.32	3.85	Between Minnesota Avenue and Cliff Avenue	12.8	12.8	12.8	38.4
3.85	4.69	Cliff Avenue Interchange Exit 4	34.1	34.1	34.1	102.3
4.69	5.31	26th Street Interchange Exit 5	33.0	33.0	33.0	99.0
5.31	6.40	Between 26th Street and 12th Street	25.0	25.0		
6.40	7.44	10th Street Interchange Exit 6 and North	29.1	29.1	29.1	87.3
7.44	8.53	Rice Street Interchange Exit 7 and North	53.1	53.1		159.3
8.53	9.15	North of Big Sioux River and North	23.9	23.9		71.7
9.15	9.70	Benson Road Interchange Exit 9	51.0	51.0	51.0	153.0
9.70	10.47	Between Benson Road and 60th Street North	24.7	24.7	24.7	74.1
10.47	11.10	I229 Systems Interchange Exit 10	37.5	37.5	37.5	112.5
		I229 TOTALS:	462.2	462.2		1463.0
		2017 MOWING CYCLE TOTALS:				
		2017 WIOWING CICLE TOTALS.	1110.7	1110.7	1240.0	3400.2

0001-271 MINNEHAHA & LINCOLN COUNTIES TABLE OF MOWING IN 2018 - PCN I4KA

			AN	INUAL MO	WING ACR	ES
LOCA	TION		1ST	2ND	3RD	2018
		AREA TO BE MOWED IN 2018	MOWING	MOWING	MOWING	
MRM TO	OWRW		CYCLE	CYCLE	CYCLE	TOTALS:
		129				
72.81	74.01	Tea Interchange Exit 73	35.9	35.9	35.9	107.7
74.01	74.65	Between Exit 73 and Exit 75	15.7	15.7	15.7	47.1
74.65	75.74	I29 Systems Interchange Exit 75	48.0	48.0	48.0	144.0
75.74	76.24	Between Exit 75 and 57th Street	8.7	8.7	8.7	26.1
76.24	77.05	Between 57th Street and 41st Street	18.2	18.2	18.2	54.6
77.05	77.81	41st Street Interchange Exit 77	21.9	21.9	21.9	65.7
77.81	78.34	26th Street Interchange Exit 78	32.1	32.1	32.1	96.3
78.34	78.82	Between 26th Street and 12th Street	7.5	7.5	7.5	22.5
78.82	79.53	12th Street Interchange Exit 79	17.3	17.3	17.3	51.9
79.53	80.02	Between 12th Street and Madison Street	13.0	13.0	13.0	39.0
80.02	80.73	Madison Street Interchange Exit 80	23.8	23.8	23.8	71.4
80.73	82.00	Russell Street Interchange Exit 81	84.0	84.0	84.0	252.0
82.00	82.77	Benson Road Interchange Exit 82	22.3	22.3	22.3	66.9
82.77	83.89	60th St North Interchange Exit 83	81.1	81.1	81.1	243.3
83.89	84.55	I29 Systems Interchange Exit 84	41.7	41.7	41.7	125.1
		I29 TOTALS:	471.2	471.2	471.2	1413.6
		190				
394.84	396.10	Marion Road Interchange Exit 395	75.6	75.6	75.6	226.8
396.10	396.98	190 Systems Interchange Exit 396	32.9	32.9	32.9	98.7
396.98	397.85	Between Kiwanis Avenue and Big Sioux River	26.8	26.8	26.8	80.4
397.85	399.11	Between Big Sioux River and Cliff Avenue	35.0	35.0	35.0	105.0
399.11	400.16	Cliff Avenue Interchange Exit 399	28.1	28.1	28.1	84.3
400.16	401.00	I90 Systems Interchange Exit 400	40.6	40.6	40.6	121.8
		I90 TOTALS:	239.0	239.0	239.0	717.0
		l229		T		
0.00	0.08	I229 Systems Interchange	53.9	53.9	53.9	161.7
0.08	0.39	Between Solberg Avenue and Louise Avenue	7.3	7.3	7.3	21.9
0.39	1.26	Louise Avenue Interchange Exit 1C	78.3	78.3	78.3	234.9
1.26	1.81	Between Louise Avenue and Western Avenue	21.4	21.4	21.4	64.2
1.81	2.36	Western Avenue Interchange Exit 2	20.9	20.9	20.9	62.7
2.36	2.78	Between Western Avenue and Minnesota Avenue	9.9	9.9	9.9	29.7
2.78	3.32	Minnesota Avenue Interchange Exit 3	22.7	22.7	22.7	68.1
3.32	3.85	Between Minnesota Avenue and Cliff Avenue	12.8	12.8	12.8	38.4
3.85	4.69	Cliff Avenue Interchange Exit 4	34.1	34.1	34.1	102.3
4.69	5.31	26th Street Interchange Exit 5	33.0			99.0
5.31	6.40	Between 26th Street and 12th Street	25.0	25.0	25.0	75.0
6.40	7.44	10th Street Interchange Exit 6 and North Rice Street Interchange Exit 7 and North	29.1	29.1	29.1 53.1	87.3 159.3
7.44 8.53	8.53 9.15	North of Big Sioux River and North	53.1 23.9	53.1 23.9	23.9	71.7
9.15	9.15	Benson Road Interchange Exit 9	51.0		51.0	153.0
9.15	10.47	Between Benson Road and 60th Street North	24.7	51.0 24.7	24.7	74.1
10.47	11.10	1229 Systems Interchange Exit 10	37.5	37.5	37.5	112.5
10.47	11.10	I229 TOTALS:	538.6			1615.8
		2018 MOWING CYCLE TOTALS:				3746.4
		2010 MOWING CICLL TOTALS.	1240.0	1240.0	1240.0	3740.4

0001-271 MINNEHAHA & LINCOLN COUNTIES TABLE OF MOWING IN 2019 - PCN I4KC

	ANNUAL MOWING ACRE			ES		
LOCA	TION		1ST	2ND	3RD	2019
MRM TO		AREA TO BE MOWED IN 2019		MOWING		TOTALS:
IALLZIAL LA	O IVIIVIVI		CYCLE	CYCLE	CYCLE	TOTALS.
		129				
72.81	74.01	Tea Interchange Exit 73	35.9	35.9	35.9	107.7
74.01	74.65	Between Exit 73 and Exit 75	15.7	15.7	15.7	47.1
74.65	75.74	I29 Systems Interchange Exit 75	48.0	48.0	48.0	144.0
75.74	76.24	Between Exit 75 and 57th Street	8.7	8.7	8.7	26.1
76.24	77.05	Between 57th Street and 41st Street	18.2	18.2	18.2	54.6
77.05	77.81	41st Street Interchange Exit 77	21.9	21.9	21.9	65.7
77.81	78.34	26th Street Interchange Exit 78	32.1	32.1	32.1	96.3
78.34	78.82	Between 26th Street and 12th Street	7.5	7.5	7.5	22.5
78.82	79.53	12th Street Interchange Exit 79	17.3	17.3	17.3	51.9
79.53	80.02	Between 12th Street and Madison Street	13.0	13.0	13.0	39.0
80.02	80.73	Madison Street Interchange Exit 80	23.8	23.8	23.8	71.4
80.73	82.00	Russell Street Interchange Exit 81	84.0	84.0	84.0	252.0
82.00	82.77	Benson Road Interchange Exit 82	22.3	22.3	22.3	66.9
82.77	83.89	60th St North Interchange Exit 83	81.1	81.1	81.1	243.3
83.89	84.55	I29 Systems Interchange Exit 84	41.7	41.7	41.7	125.1
		I29 TOTALS:	471.2	471.2	471.2	1413.6
		190				
394.84	396.10	Marion Road Interchange Exit 395	75.6	75.6	75.6	226.8
396.10	396.98	I90 Systems Interchange Exit 396	32.9	32.9	32.9	98.7
396.98	397.85	Between Kiwanis Avenue and Big Sioux River	26.8	26.8	26.8	80.4
397.85	399.11	Between Big Sioux River and Cliff Avenue	35.0	35.0	35.0	105.0
399.11	400.16	Cliff Avenue Interchange Exit 399	28.1	28.1	28.1	84.3
400.16	401.00	190 Systems Interchange Exit 400	40.6	40.6	40.6	121.8
		I90 TOTALS:	239.0	239.0	239.0	717.0
		1229				
0.00	0.08	I229 Systems Interchange	53.9	53.9	53.9	161.7
0.08	0.39	Between Solberg Avenue and Louise Avenue	7.3	7.3	7.3	21.9
0.39	1.26	Louise Avenue Interchange Exit 1C	78.3	78.3	78.3	234.9
1.26	1.81	Between Louise Avenue and Western Avenue	21.4	21.4	21.4	64.2
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3.32	3.85	Between Minnesota Avenue and Cliff Avenue	12.8	12.8	12.8	38.4
3.85	4.69	Cliff Avenue Interchange Exit 4	34.1	34.1	34.1	102.3
4.69	5.31	26th Street Interchange Exit 5	0.0	0.0	0.0	0.0
5.31	6.40	Between 26th Street and 12th Street	25.0			
6.40	7.44	10th Street Interchange Exit 6 and North	29.1	29.1	29.1	87.3
7.44	8.53	Rice Street Interchange Exit 7 and North	53.1	53.1	53.1	159.3
8.53	9.15	North of Big Sioux River and North	23.9	23.9	23.9	71.7
9.15	9.70	Benson Road Interchange Exit 9	51.0	51.0	51.0	153.0
9.70	10.47	Between Benson Road and 60th Street North	24.7	24.7	24.7	74.1
10.47	11.10	I229 Systems Interchange Exit 10	37.5	37.5	37.5	112.5
		I229 TOTALS:	505.6	505.6	505.6	1516.8
		2019 MOWING CYCLE TOTALS:	1215.8	1215.8	1215.8	3647.4

TABLE OF MOWING TOTALS

YEAR	1ST MOWING CYCLE	2ND MOWING CYCLE	3RD MOWING CYCLE	ANNUAL TOTALS:
2017	1115.7	1115.7	1248.8	3480.2
2018	1248.8	1248.8	1248.8	3746.4
2019	1215.8	1215.8	1215.8	3647.4
3 YEAR CYCLE TOTALS:	3580.3	3580.3	3713.4	10874.0

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DESCRIPTION OF WORK

The work shall consist of mowing grass and other vegetation within the right-of-way of Interstates 29, 90 and 229 looping the City of Sioux Falls as shown in these plans.

CONTRACT PERIOD - 3 YEARS

The contract start date is the date the contract is awarded to the Contractor. The contract completion date is the last date the Contractor performs services for the Department.

EQUIPMENT

- 1. The mowing may be performed with tractor operated rotary, flail or sickle mowers. Other types of cutting machines may be used but will require approval prior to use.
- 2. All rotary mowers must be equipped with safety chains or approved devices to prevent damage to property from flying debris from under the mower.
- 3. The mower/tractor shall be equipped with a flashing amber light mounted on the top of the tractor visible for 360°. A strobe light with 600,000 candle power or a revolving light with a 4" sealed beam unit is acceptable (minimum requirements).
- 4. A slow moving emblem will be required to be mounted on the mowing unit visible from the rear.
- 5. Mowers shall be kept in good operating condition at all times and produce a clean, sharp cut of vegetation.

MOWING REQUIREMENTS

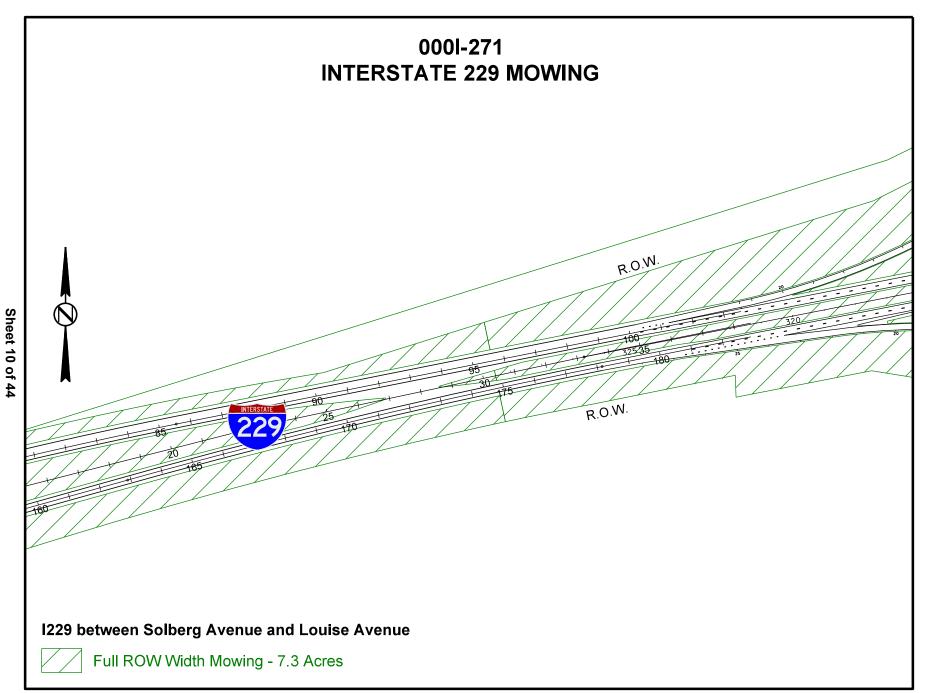
- The start of mowing operations will be determined by the Engineer. Mowing will not begin until the
 vegetation reaches an average height of 12 inches. Mowing cycle is defined as all tractor mowing and hand
 trimming.
- 2. The Contractor shall begin mowing operations within ten days after notification.
- 3. Each mowing cycle (first, second & third) will consist of all areas within the right-of-way as detailed in the plans.
- 4. Mowing equipment will not be allowed on the driving lanes or shoulders.
- 5. After mowing has started, the Contractor will be required to complete each mowing cycle within eighteen calendar days unless otherwise extended by the Engineer. Failure to complete a mowing cycle within the specified timeframe will result in liquidated damages being assessed.
- 6. Unless otherwise directed by the Engineer, mowing of the Project will be performed three times between the dates of May 1 and October 31. The first mowing cycle shall be done prior to June 15. The second mowing cycle shall be done between July 10 and August 10. The third mowing cycle shall be done between October 1 and October 31. In the event that vegetation does not reach the average height of 12 inches, the mowing schedule may be adjusted and/or the third mowing cycle may be eliminated (partially or in full).
- 7. Vegetation shall be mowed to a height of four to six inches.
- 8. The Contractor will confine all operations to daylight hours with no work performed on Sundays or State Holidays unless authorized by the Engineer.
- All mowed areas shall be left in a neat appearing condition upon completion of the mowing. Strips of uncut grass or piles of cut grass shall not be left in the mowed areas. Baling will not be permitted within the area covered under this contract.

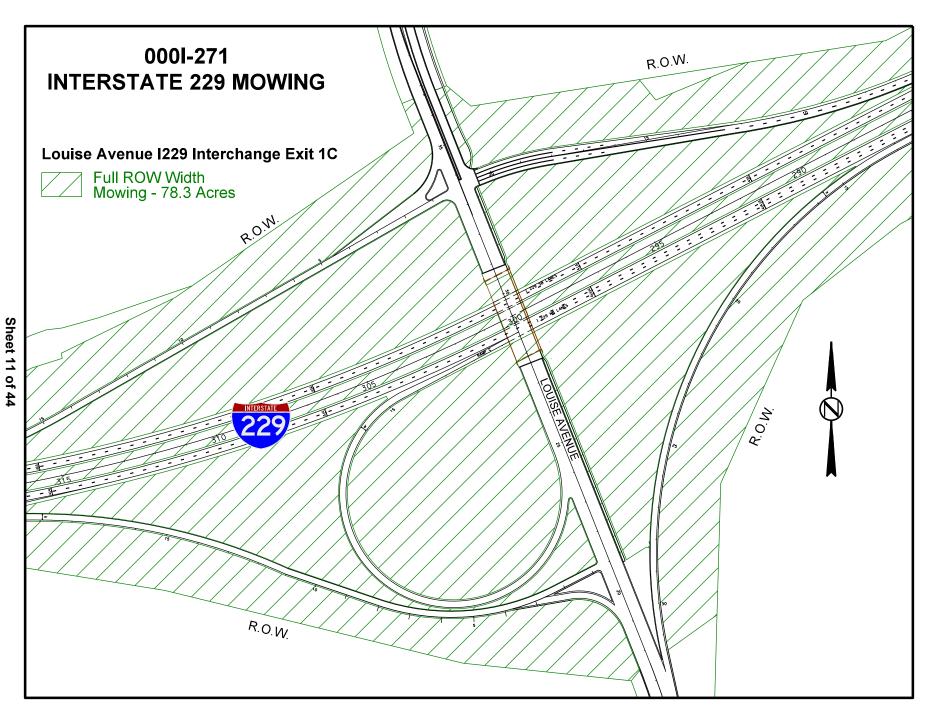
MOWING REQUIREMENTS (CONTINUED)

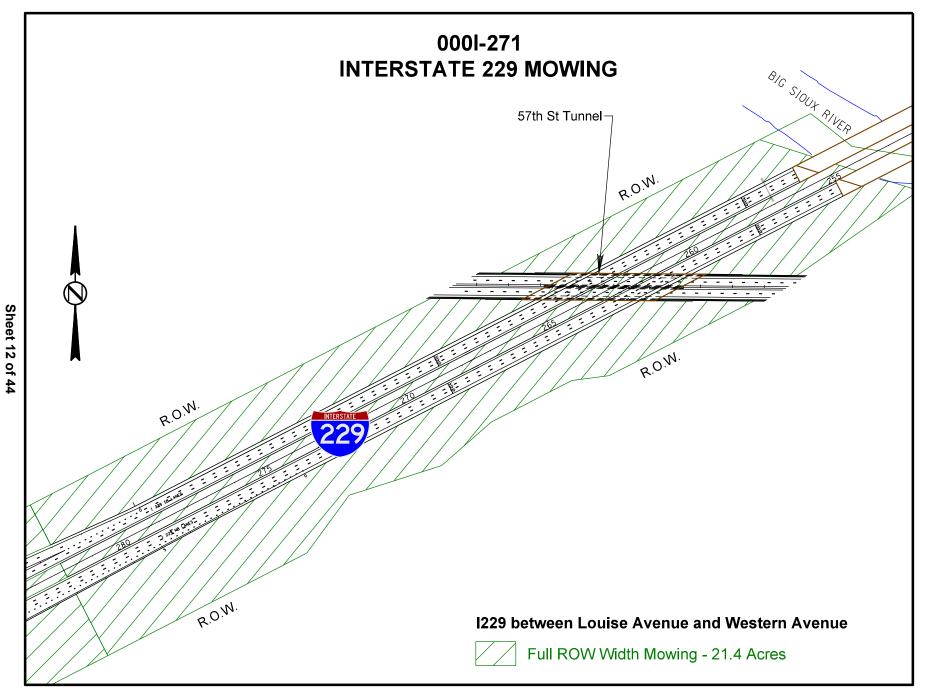
- 10. Hand trimming will be required along noise walls, stabilization walls, bridge bents/abutments, barrier, guardrail, curb & gutter, and around culvert openings, sign supports, delineators, and columns, power, signal and light poles, footings, trees and shrubbery, improvement areas, and other appurtenances. Hand trimming will also be required along the right-of-way fence in front of the Country Club Golf Course, the mobile home sales park and First Premiere Bank. Riprap areas are not included in the acreage specified in the plans, however, hand trimming will be required to cut weeds down, in and around all riprap areas, including bridge ends and the riprap section along the west side of I29 north of 57th Street.
 - Hand trimming will be done on the entire project during all three cycles of Mowing. Hand trimming shall be completed within the timeframe of each mowing cycle. Cost for hand trimming shall be incidental to the contract unit price per acre for Mowing.
- 11. Mowing acreage has been reduced in the I29/I229 Systems interchange area (I29 MRM 74.0 to MRM 76.5 and I229 MRM 0.0 to MRM 0.7) and at I229 Interchange Exit 1C, Louise Avenue in the area between the northbound lanes and the ramps in the southwest quadrant, due to recent seeding. It is anticipated that this area will not be mowed during 2017 (first and second mowing cycles) but is subject to change as directed by the Engineer. The first and second cycles in the Table of Mowing in 2017 have been reduced to reflect this. The estimated area of reduction is 133.1 acres per cycle.
 - I229 Exit 5, 26th Street interchange area may be under construction in 2019 (first, second and third mowing cycles) and mowing is not anticipated at Exit 5 in 2019 but is subject to change as directed by the Engineer. The first, second and third cycles in the Table of Mowing in 2019 have been reduced to reflect this. The estimated area of reduction is 33.0 acres per cycle.
 - Other sections of this project may also be removed from the contract due to construction or other reasons. No payment will be made for sections of the project that are removed from the plans and no adjustment will be allowed to the contract unit prices as result of removed sections.
- 12. Additional areas can be ordered mowed for control of noxious weeds, sight distance or for appearance. Areas included in the mowing summary may also be deleted as determined by the Engineer.
- 13. Mowing of inslopes or backslopes steeper than 2.5:1 and wet and/or other inaccessible areas will not be required unless the vegetation interferes with safe sight distance to the driving public, which then may require hand mowing.
- 14. Sanitary sewer manholes are in place within the mowing area at various locations throughout the project. It is the Contractor's responsibility to verify these locations. If a manhole is disturbed due to the Contractor's operations, the City of Sioux Falls shall be contacted immediately. Any damage caused by the Contractor's operations shall be repaired at the Contractor's expense.
- 15. Mowing adjacent to, inside, or between guardrail installations and other appurtenances will be required. The method of getting the mowers into such areas must have Engineer approval or be hand mowed. Prior to bidding, it is the Contractor's responsibility to identify equipment needs to accomplish the work
- 16. If equipment is left on the project overnight, it cannot be left in the median. The equipment must be parked near the right-of-way fence line. Equipment shall not be left unattended within thirty feet of the roadway shoulder at any time.
- 17. Mower movement in and out of the median and crossing traffic lanes shall be kept to a minimum. Mowing equipment shall not cross mainline interstate Monday through Friday during the hours 7:30am to 8:30am and 4:00pm to 6:00pm. Bridges shall be crossed using the proper lanes and travel only in the true direction of traffic. The Contractor shall take all needed precautions when it is necessary to cross the traffic lanes. Mowing equipment will not be allowed to swing out into the driving lanes while mowing around delineator posts along the edge of the driving lanes.
- 18. Trees have been planted in the surrounding area of the I29/I229 Systems Interchange and I229 Interchange Exit 1C, Louise Avenue. The Contractor shall take care and not damage the trees. Any trees damaged shall be replaced at the Contractor's expense.

MEASUREMENT AND PAYMENT

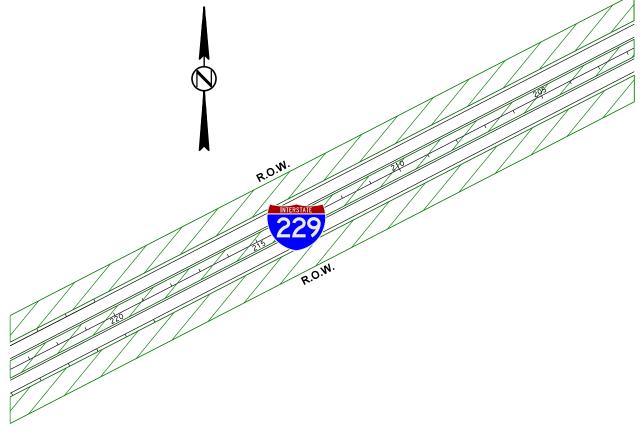
- 1. Payment for Mobilization 1, 2 or 3 will be made at the contract unit price per each and is payment for the work necessary to establish, modify and/or organize the facilities, equipment, and personnel to provide mowing as per this contract. Payment for Mobilization 1 will take place once, after contract award, and payment for Mobilization 2 or 3 will take place once, in each of the successive 2 years of the contract, provided that the contract is renewed and, provided that the Contractor demonstrates to the Department that the aforementioned mobilization work is accomplished.
- 2. Mowing will be paid by the acre. The acres shown in the Table of Mowing will be the basis for measurement. Changes in the mowing from what is shown in the Tables of Mowing will be measured separately for payment and added or deducted as applicable.
 - The contract unit price per acre will be full compensation for furnishing all labor, equipment, supplies, and incidentals necessary to complete each mowing, including hand trimming areas.
- 3. The acres of mowing were determined by horizontal width and length computations referenced to mile reference markers. No deductions were made in these computations for inaccessible areas or other nonmowable areas.
- 4. A payment will be made after the satisfactory completion of each mowing cycle. An interim payment can be made if requested by the Contractor but it will be limited to one interim payment per mowing cycle.







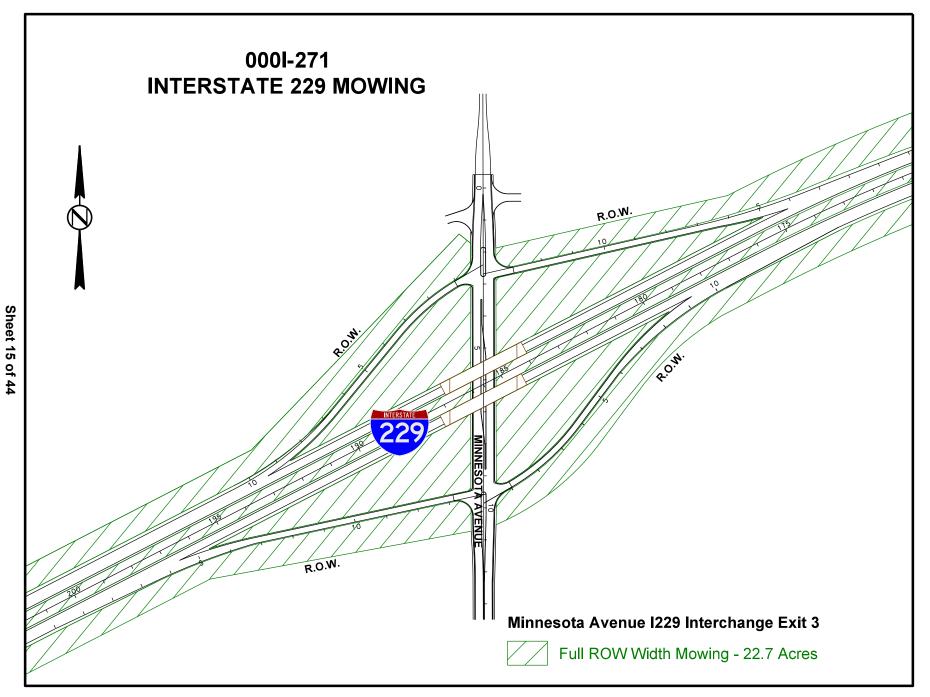
Sheet 14 of 44

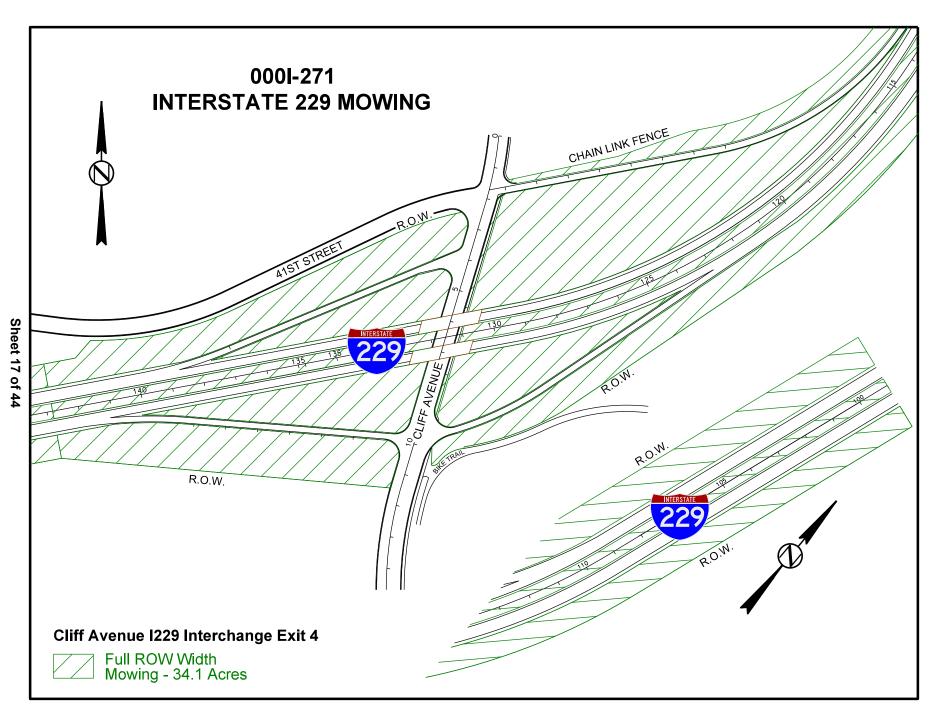


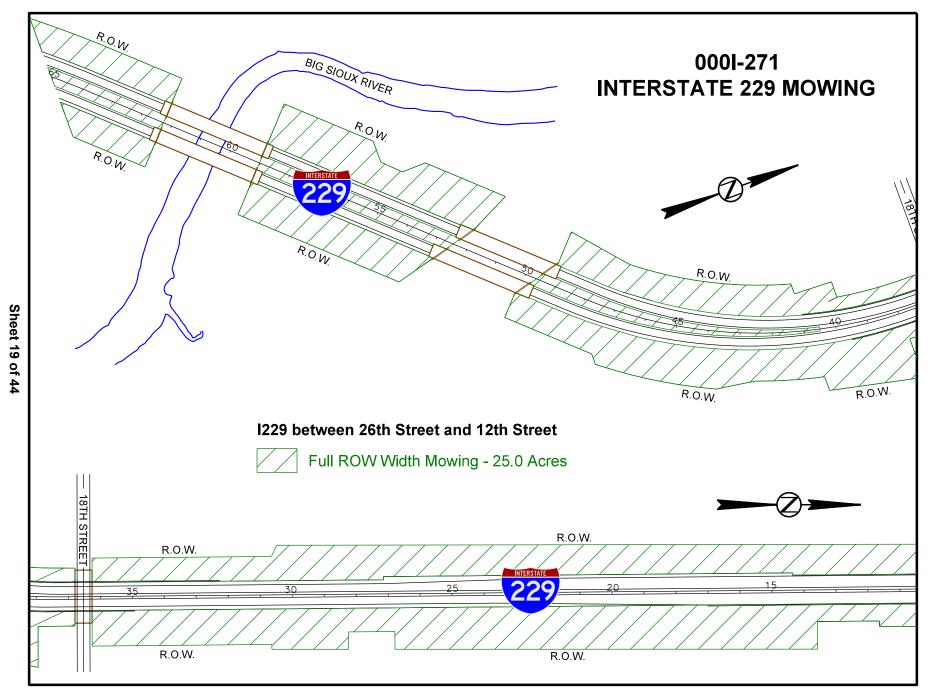
1229 between Western Avenue and Minnesota Avenue

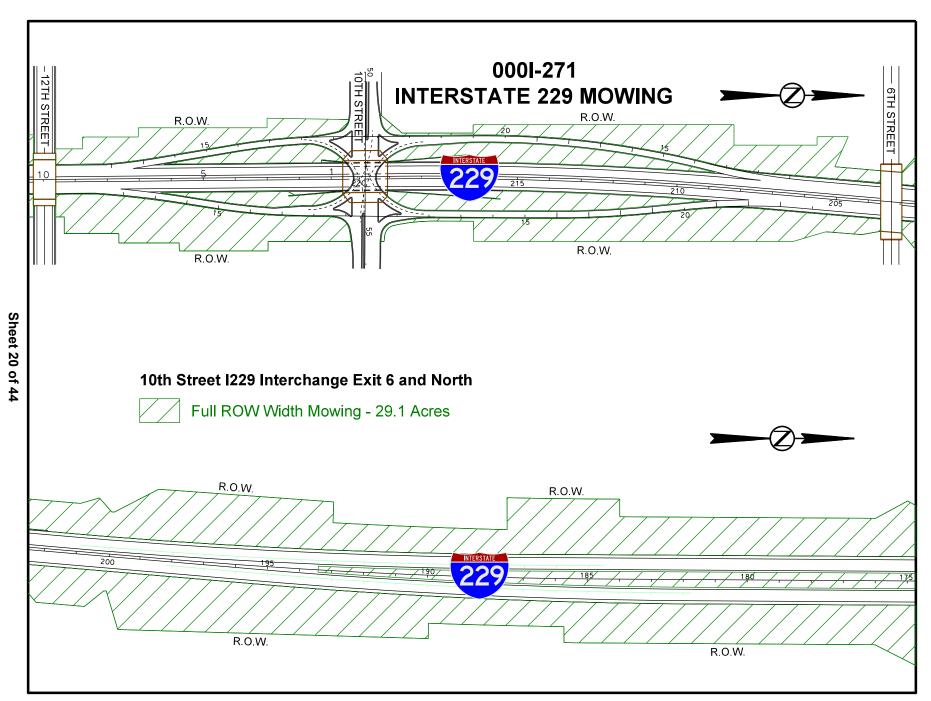


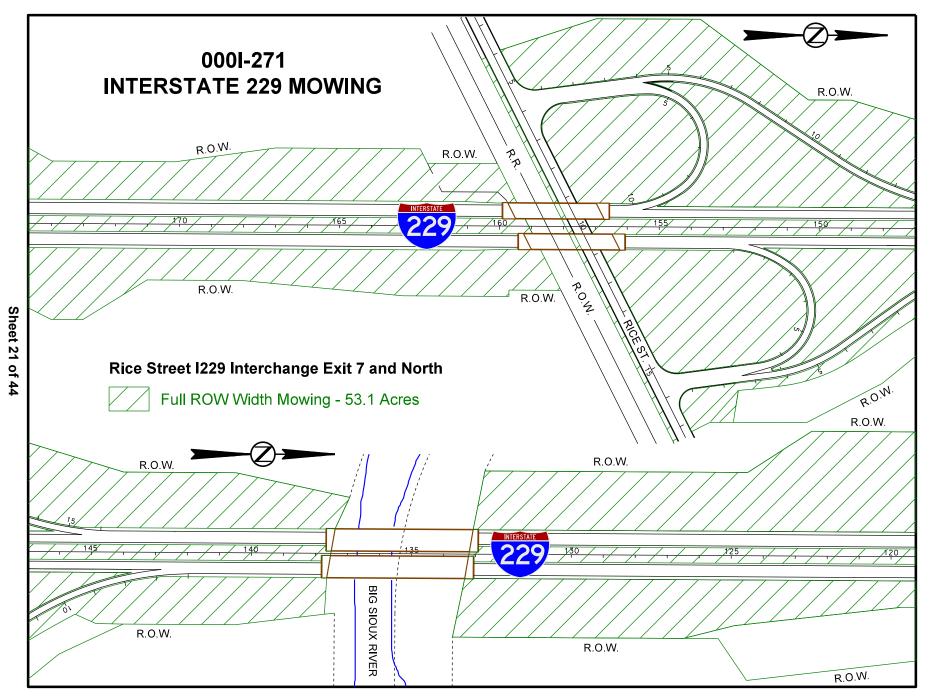
Full ROW Width Mowing - 9.9 Acres



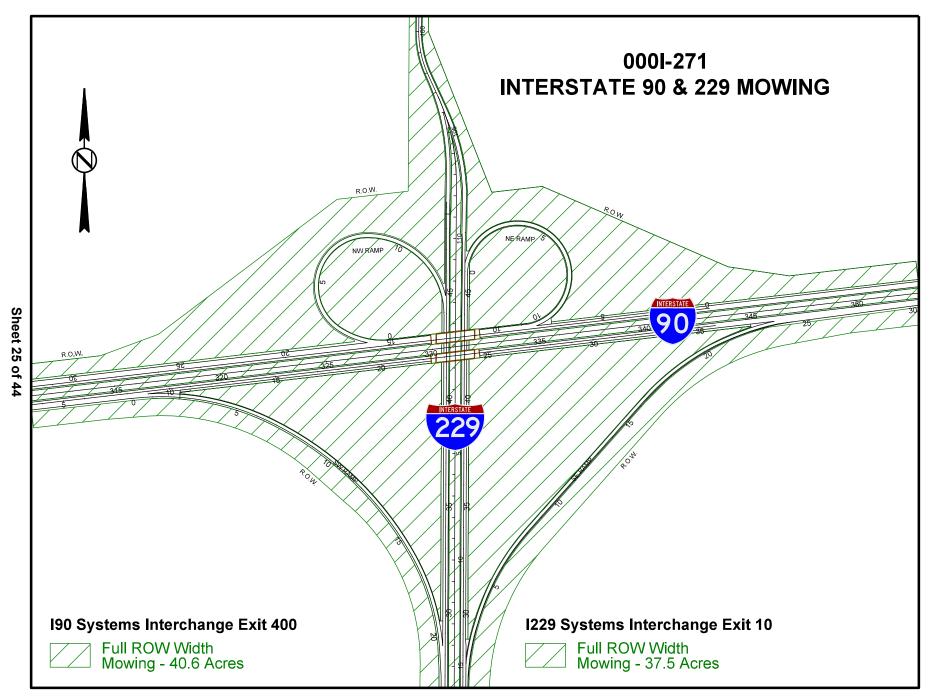


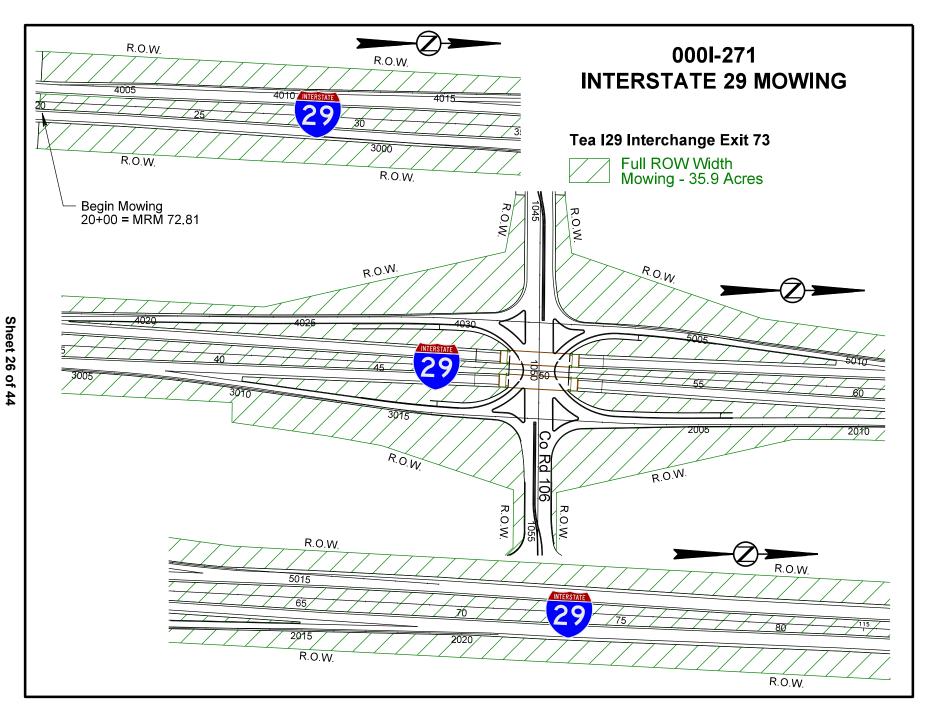




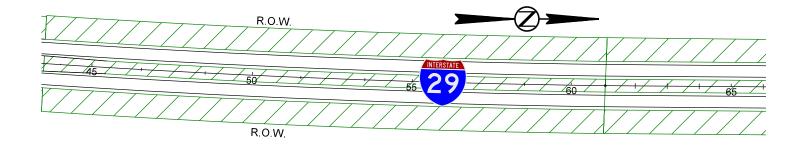


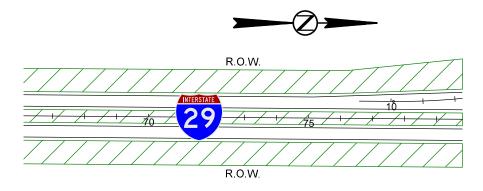
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MINNEHAHA & LINCOLN COUNTIES





000I-271 INTERSTATE 29 MOWING

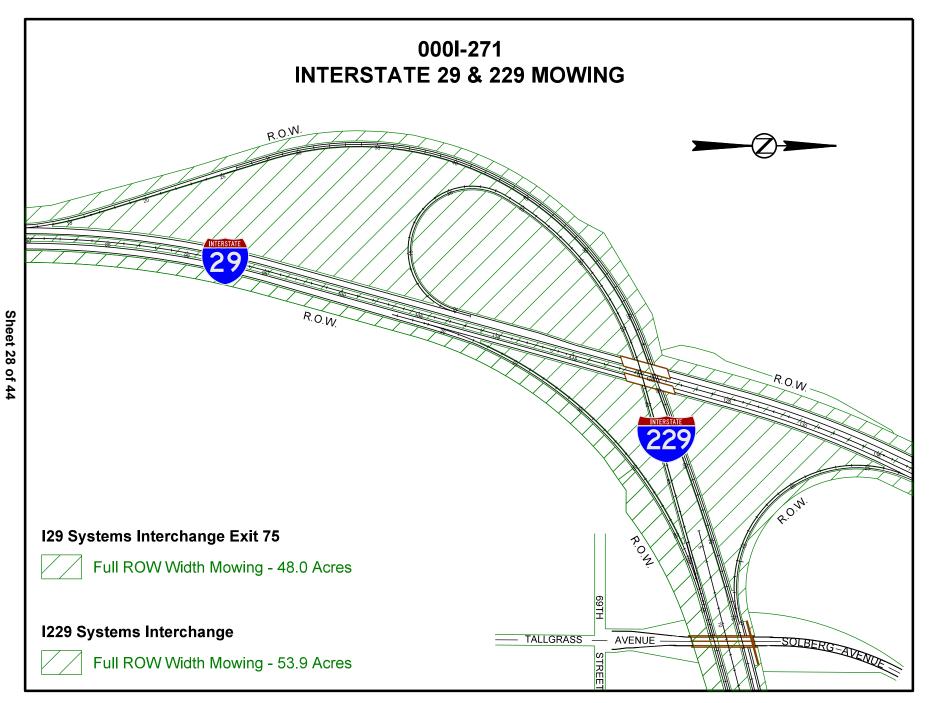




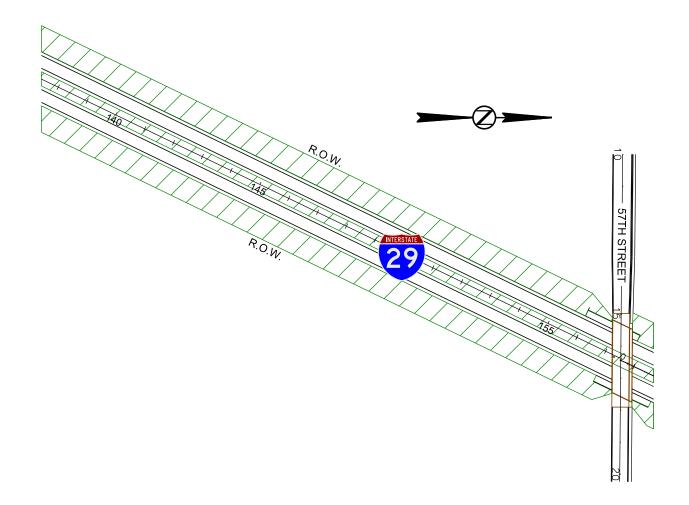
I29 between Exit 73 and Exit 75

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Full ROW Width Mowing - 15.7 Acres



0001-271 INTERSTATE 29 MOWING

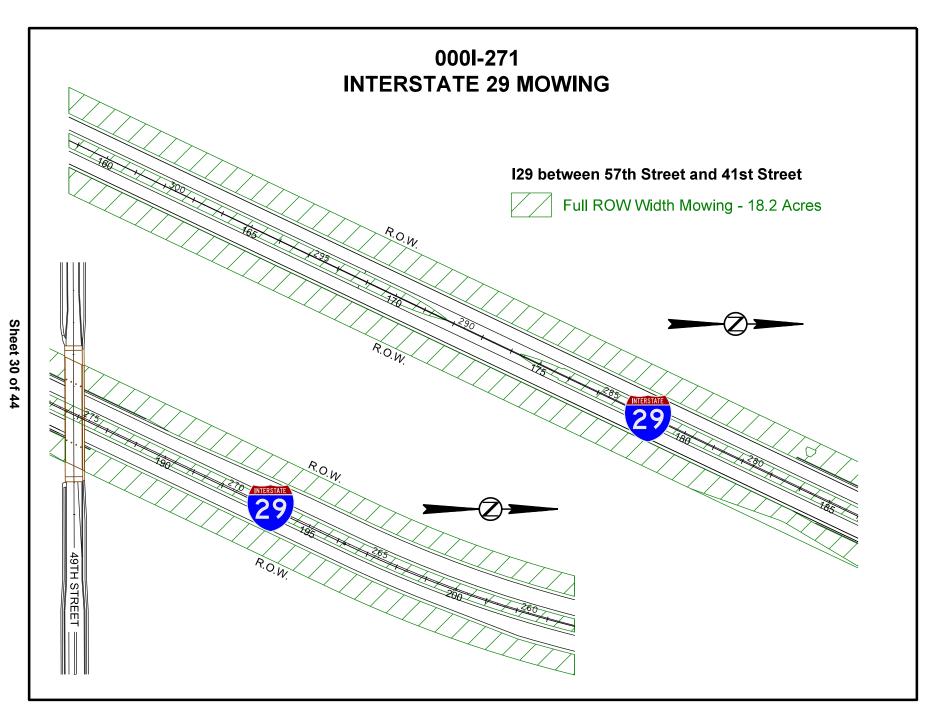


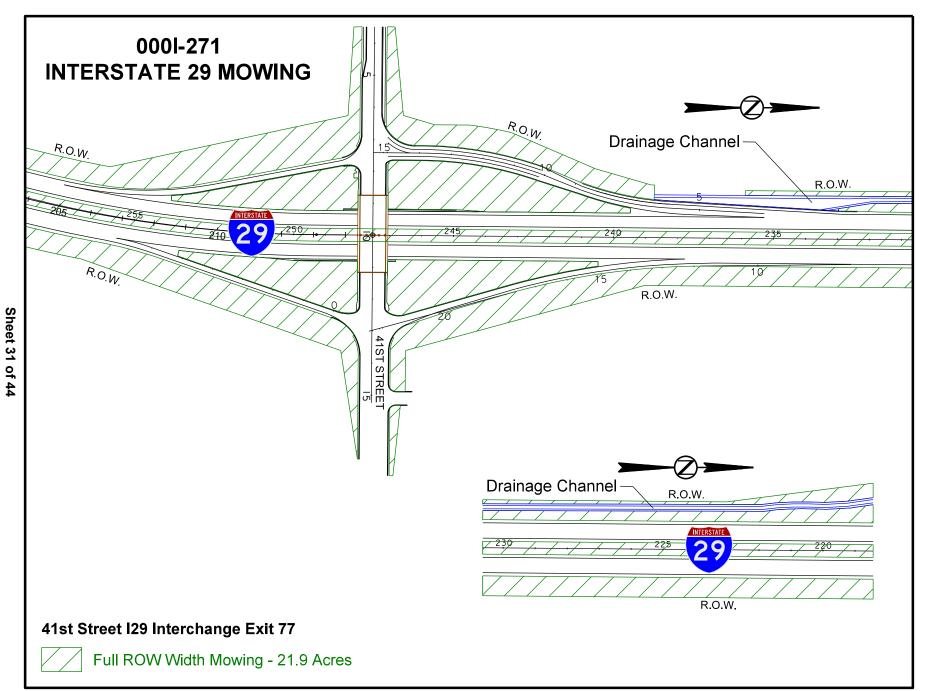
I29 between Exit 75 and 57th Street

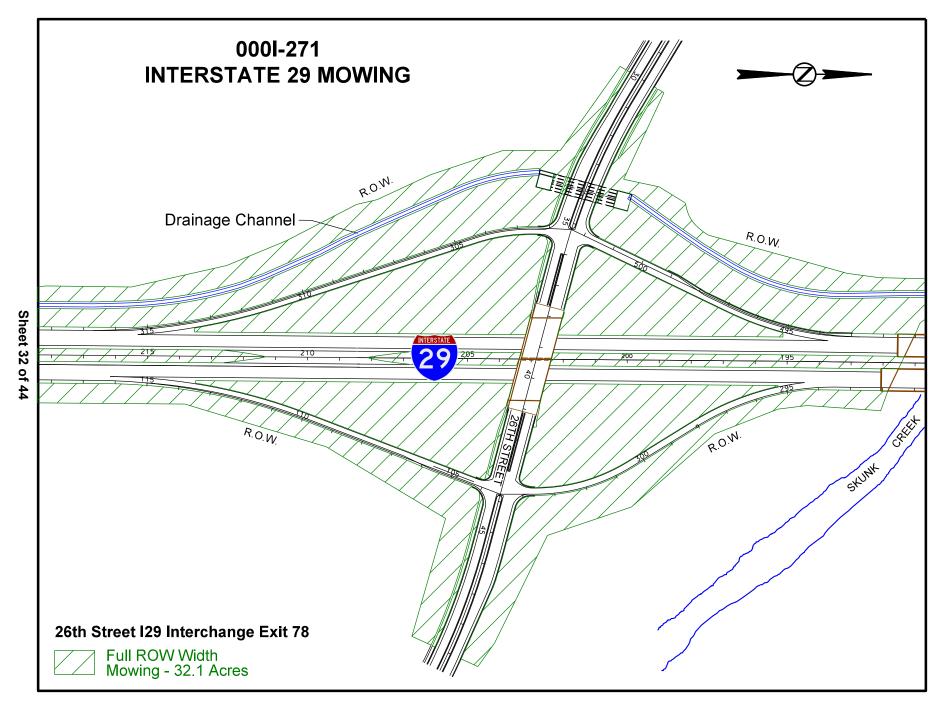


Sheet 29 of 44

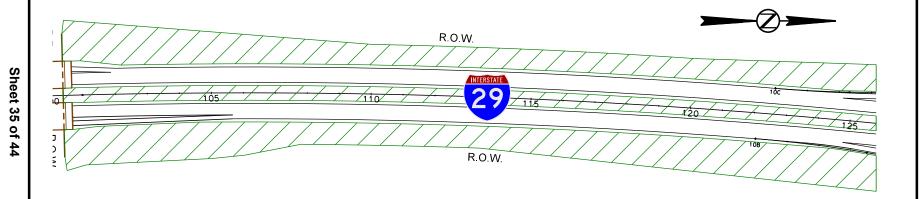
Full ROW Width Mowing - 8.7 Acres











I29 between 12th Street and Madison Street



Full ROW Width Mowing - 13.0 Acres

